

## ABSTRACT

In order to make it possible to obtain the correct decoded image even in the case of not decoding a particular frame of the encoded data and improve the coding efficiency, the predicted image production unit 103 selects the image data from the image data of a plurality of frames in the reference image memory 107 which are encoded in the past, of the  $i$ -th ( $1 \leq i \leq j$ ) category, for the current frame which is classified as the  $j$ -th category by the image classifying unit 102, and produces the predicted image. The difference encoding unit 104 encodes a difference between the image data of the current frame and the predicted image. Also, the current category encoding unit 106 encodes the category number of the current frame, and the reference image specifying data encoding unit 105 encodes the reference image specifying data which specifies the image data selected from the reference image memory 107.